CDPH
Chicago Department of Public Health

HEALTH IMPACT ASSESSMENT

RMG/SOUTHSIDE RECYCLING PERMIT APPLICATION

Summary Report

February 2022

Table of Contents

INTRODUCTION

On November 11, 2020, Reserve Management Group (RMG), doing business as Southside Recycling, applied to the Chicago Department of Public Health (CDPH) for a permit to operate a large metal recycling facility on the Southeast side of Chicago. During CDPH's review of this application, the U.S. Environmental Protection Agency (U.S. EPA) recommended that CDPH complete a health impact assessment (HIA) to ensure a thorough consideration of health and environmental justice concerns. In response, CDPH immediately paused its permitting process and began work on the HIA in May 2021.

This report summarizes our findings from the HIA, which was conducted in close coordination with and reliance on both the U.S. EPA and our environmental consultant, and with input from community members, environmental justice advocates, and public health stakeholders.

BACKGROUND ON THE RMG/SOUTHSIDE RECYCLING FACILITY PROPOSAL

RMG is an Ohio-based metal recycling company. The company has operated recycling facilities on a 175-acre property on the Southeast side of Chicago – the location of a former steel mill – for more than 30 years. Today, there are four businesses on the campus: Napuck Salvage of Waupaca, South Shore Recycling, Reserve Marine Terminals and RSR Partners (Regency Technologies).

> "Recycling obsolete metal contributes to environmental sustainability by reusing resources instead of discarding metal waste in landfills, and it conserves energy and natural resources"

In 2019, RMG purchased General Iron, which was at that time operating a large metal recycling facility on Chicago's North side, and prepared to relocate certain recycling assets to RMG's existing campus on the Southeast side. RMG is currently seeking a permit to operate Southside Recycling – a new facility that would accept a large volume of scrap metal, including end-of-life vehicles, for processing and recycling – at 11600 S. Burley Ave.

The Illinois EPA issued RMG a state construction permit for Southside Recycling in June 2020.

Following standard procedure, RMG also received the necessary special use zoning approval from the City of Chicago in 2019. In March 2021, with support from CDPH, Chicago's City Council approved the Air Quality Zoning ordinance, which now requires certain industrial zoning applicants to submit an air quality impact study and get a written recommendation from CDPH at the time of initial zoning decisions. RMG received its zoning approval prior to passage of this ordinance, and CDPH did not play a role in earlier siting decisions for the proposed Southside Recycling operation.

The Air Quality Ordinance, approved by City Council in March 2021, regulates the construction and expansion of certain facilities that create air pollution. The ordinance requires site plan review and approval by the Department of Planning and Development (DPD), the Chicago Department of Public Health (CDPH), and the Chicago Department of Transportation (CDOT).

RMG requires a CDPH air pollution control permit and a recycling facility permit for Southside Recycling. Permits are issued only if applicants meet zoning and environmental requirements. The Commissioner of CDPH can require special permit conditions based on past violations or other concerns. Consistent with the permit previously issued by the Illinois EPA, CDPH issued an air pollution control permit to RMG in September 2020 for the installation, but not the operation, of pollution control equipment. The facility cannot start operations without first being issued a recycling facility permit.

Throughout the Illinois EPA and CDPH permitting processes, community members and environmental justice advocates have protested the location of Southside Recycling. These protests have centered on concerns about environmental and community impacts, as well as the equity implications of policy decisions that may support de-industrialization of more affluent neighborhoods, while industry continues to be concentrated in areas like Chicago's Southeast side.

LARGE RECYCLING FACILITIES

Large recycling facilities with shredders collect and process automobiles, appliances, and other large items containing recyclable material. Recovered metals are sold to other end users – for instance, manufacturers and foundries. As such, recycling facilities play an important role in keeping metal materials out of the waste stream and landfills by preparing them for reuse. Using recycled metal in manufacturing processes reduces the need for environmentally harmful mining activities.

Large metal recyclers are fundamentally different from most other heavy industry in that they are dependent on suppliers to sort and process the materials they bring in for recycling. This includes "de-polluting" end-of-life vehicles by draining combustible fluids and removing batteries and other components. Similarly, suppliers (who often are individuals with pickup trucks full of miscellaneous scrap) are relied on to sort materials and exclude or separate out certain problematic items. The quality control issues inherent in this business model are different in kind from those of, say, large manufacturers with standardized parts, assembly processes, and final product testing and distribution.

Consequently, a facility like the one proposed for the Southeast side presents unique risks and uncertainties. As noted in a recent U.S. EPA Enforcement Alert:

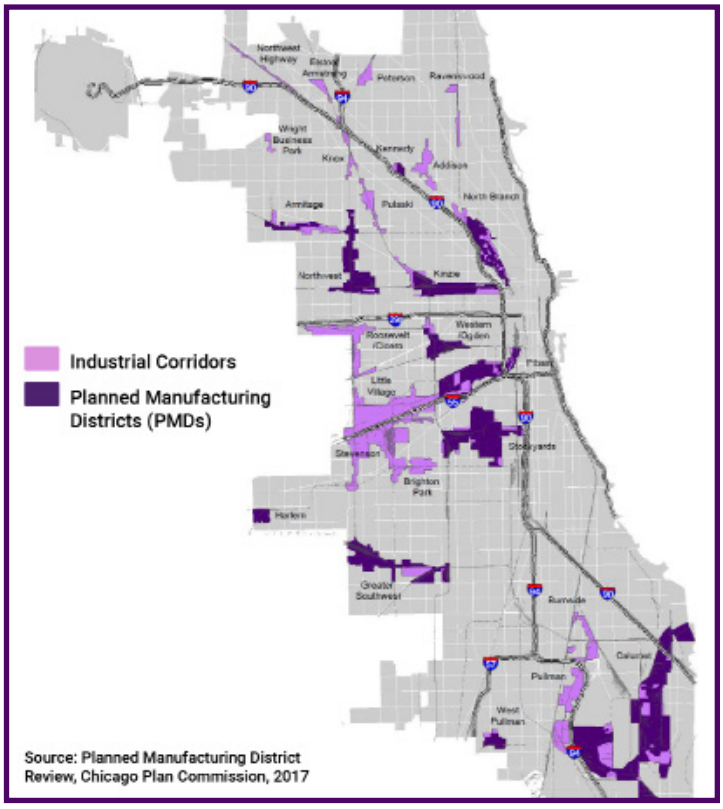
> **Significant amounts of non-metal materials are contained in the shredded materials, which can vaporize and become organic air emissions. These materials include plastics, paints, caulks, sealants, rubber, switches, fluids, and fluid residues. The process of grinding and shredding scrap metal generates heat, resulting in residual fluids and fuels becoming gases. The violent nature of the process creates the potential for particulate matter emissions of various sizes. Thus, the process generates emissions of VOCs, particulate matter, and hazardous air pollutants including lead, zinc, cadmium, mercury, and organic pollutants.**

Beyond the risk of emissions, if fluids and certain materials are not properly removed and disposed of prior to shredding, there is a risk of fire and explosion – as occurred at General Iron on May 18, 2020. Industry experts have estimated that there are hundreds of fires at metal recycling facilities each year. Recycling facilities also contribute to issues such as noise and traffic that impact the quality of life for nearby communities.

INDUSTRIAL CORRIDORS & PLANNED MANUFACTURING DISTRICTS

The city of Chicago is a center for industrial development with a rich industrial history, including strong freight and manufacturing clusters.

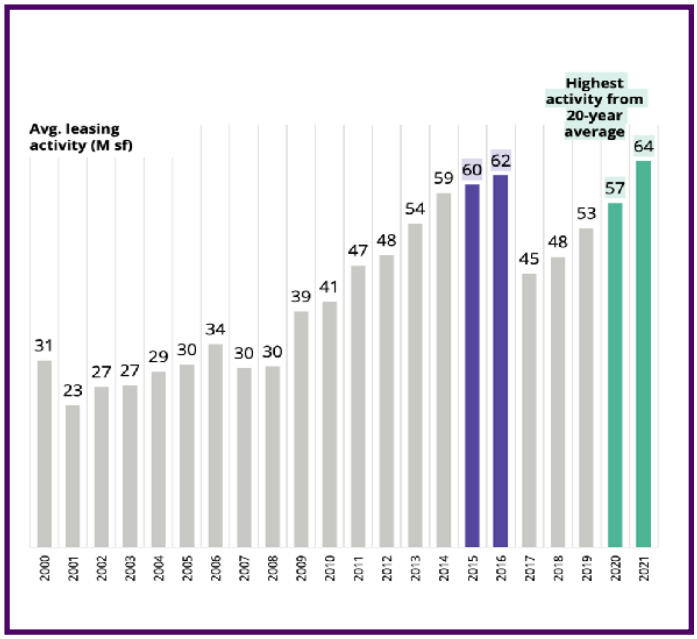
Chicago's industrial corridors and planned manufacturing districts (PMDs) are designated areas with special land use provisions that support manufacturing, transportation, warehousing, and other industrial uses as part of a diversified economy. According to the Department of Planning & Development, "each corridor has unique assets and characteristics that collectively function on behalf of the entire city, in which companies expand, relocate, and depend upon each other as their needs evolve within a changing economic landscape." These industrial corridors and PMDs are located across the city of Chicago.



Today, the City's 26 formal industrial corridors range in size from 70 to 3,500 acres, and contain about 12 percent of all city land.

Post COVID, Chicago's industrial market has grown at a record rate, with industrial leasing activity up 48.3% from 2020-2021 versus the prior 20-year annual average leasing activity. (Chicago Industrial Market Report, Avison Young)

> **Developed and emerging economies around the world have been transformed in recent years by new technologies, advances in freight and logistics, and evolving consumer demand. These trends and climate change will increasingly shape global commerce. Metropolitan Chicago is well-positioned not just to withstand these complex factors but to seize new opportunities due to our strengths among a range of industries and our diverse and skilled population. The region is also endowed with the preeminent North American freight hub, active and engaged civic leadership, and world-class institutions of education and research.**
>
> *Chicago Metropolitan Agency for Planning, On to 2050*



PROMOTING HEALTH & RACIAL EQUITY

CDPH is committed to promoting health and racial equity. Even before the COVID-19 pandemic, Black Chicagoans lived an average 71.4 years while life expectancy for white Chicagoans was 80.2 years. Chronic disease is the leading driver of this nearly 9-year life expectancy gap, as well as decreasing life expectancy in Chicago's Latinx population. Pollution exposure can both increase the risk of chronic illnesses like heart and lung diseases and contribute to worse outcomes for people living with certain health conditions.

HEALTHY CHICAGO 2025 VISION

A city where all people and all communities have power, are free from oppression and are strengthened by equitable access to resources, environments and opportunities that promote optimal health and well-being.

In Healthy Chicago 2025, our citywide plan to close this life expectancy gap, we lay out strategies to address the root causes of health – including by identifying and redressing policies and systems that create inequities in community conditions. The plan identifies improving the environment as a priority, so that all Chicagoans – and particularly people who live in communities disproportionately burdened by pollution – can "breathe clean air free of harmful pollutants."

CDPH recognizes that low-income communities and communities of color are disproportionately impacted by pollution. In 2020, CDPH published the Air Quality and Health Report outlining community-level data on air quality, health, and social factors to identify, for the first time, which neighborhoods should be prioritized for efforts to mitigate and reduce air pollution. We have already seen other City departments use this report to, for example, prioritize the electrification of bus routes and plan for tree planting initiatives.

STRENGTHENING ENVIRONMENTAL PROTECTIONS

The CDPH Environmental Permitting and Inspection Program is responsible for permitting, inspections and enforcement of environmental regulations in Chicago. CDPH conducts thorough reviews of permit applications to ensure that they meet all applicable requirements.

CDPH and the City of Chicago have adopted recent policy changes to strengthen environmental enforcement and reduce environmental impacts, particularly in vulnerable communities. In June 2020, given new findings about the impacts of facilities such as General Iron, CDPH released the Rules for Large Recycling Facilities. Created with input from local environmental justice groups and industry representatives, these standards are the first ever

Everybody doesn't breathe the same air. Air quality is worse in low-income neighborhoods located near industrial areas and major roadways.

CDPH Air Quality and Health Report

put in place in Chicago that specifically address the impacts of larger scale recycling facilities. The rules impose extensive requirements, including: air impact study and continuous air monitoring, real-time notification to CDPH of air monitor exceedances, noise impact assessment and monitoring, and more stringent record-keeping requirements. The rules also prohibit dust from leaving the site and include many requirements to minimize and control dust and pollution, such as submission of a fugitive dust plan, requirements to pave surfaces, regular street sweeping, visible dust opacity monitoring, height limits on stockpiles, thermal camera hotspot monitoring of stockpiles, development of a stormwater pollution prevention plan for facilities that discharge to storm sewers or that are near the river, and full enclosure of shredding equipment and waste. Most of these rules apply to all recyclers going forward, including those with existing permits when they apply for permit renewals.

In recent years, CDPH and the City have additionally:

- Issued **Rules for Control of Emissions from Handling and Storing Bulk Materials** that require continuous particulate matter and meteorological monitoring at facilities that process, handle, transfer, load, unload, stockpile, or store bulk solid materials. Any manganese-bearing bulk material facilities that do not enclose material must install and operate a filter-based sampler that measures ambient metals.
- Increased **environmental fines** to address more serious issues related to violations of air pollution, fugitive dust and demolition ordinances.
- Drafted **rock crusher rules** to require enhanced environmental controls. We expect to promulgate the rules later this year.
- As above, passed the **Air Quality and Zoning ordinance**, which requires industrial zoning applicants to submit an air quality impact study and get a written recommendation from CDPH and the Chicago Department of Transportation (CDOT) as a condition for site plan approval.

HEALTH IMPACT ASSESSMENT PROCESS SUMMARY

A health impact assessment (HIA) is a practice that aims to increase considerations of health and equity in decision making. HIAs use a range of data sources, methods, and stakeholder input to increase understanding of how a proposed policy, plan, or project will impact the health of a population. Once the potential health impacts are assessed, an HIA makes recommendations to maximize health benefits and mitigate health threats.[1]

Considerable diversity exists in the practice and products of HIA. While an HIA must meet certain minimum elements described in the Minimum Elements and Practice Standards for Health Impact Assessment, the specific application varies based on the timeline, decision context, available resources, and expertise.[2] This summary of the RMG/Southside Recycling HIA follows the standard six-step process of health impact assessment methodology. Steps include (1) screening, (2) scoping, (3) assessment, (4) recommendations, (5) reporting and (6) monitoring.

! For a description of how our HIA meets the Minimum Elements and Practice Standards for Health Impact, see our HIA Process Evaluation (Appendix A)

step 1 SCREENING: Determine the need and value of an HIA for the decision-making process.

The U.S. EPA recommended an HIA as a process to inform CDPH's decision on the Large Recycling Facility permit application. After considering key screening questions, CDPH determined that an HIA would provide necessary additional insight into the health equity impacts of the RMG/Southside Recycling proposal.

step 2 SCOPING: Determine which health impacts to evaluate, methods for analysis, and priority populations.

CDPH solicited broad input on the RMG/Southside Recycling permit. Through public town halls, an extended public comment period, and daily media monitoring, we received insight from thousands of community members, local organizations, environmental advocacy groups, public health professionals, and other stakeholders to help us understand the impacts – both positive and negative – of greatest interest. CDPH used this feedback to establish the HIA scope, which we validated through additional engagement meetings during the HIA process. The U.S. EPA provided guidance on methods for analysis.

step 3 ASSESSMENT: Gather existing conditions data and evaluate potential health impacts.

CDPH conducted a mixed-methods assessment to understand existing conditions and potential environmental, health, and social/quality of life impacts on the Southeast side. We reviewed literature to help us analyze the environmental, health, and quality of life impacts of industrial facilities. We received input directly from community residents through small-group feedback sessions and a survey conducted as part of the HIA process. The U.S. EPA, Agency for Toxic Substances and Disease Registry (ATSDR), and CDPH's environmental consultant provided new analysis, sampling, and modeling to help us quantify current exposures and associated health risks, as well as the potential impacts of the proposed Southside Recycling operations.

step 4 RECOMMENDATIONS: Make recommendations to mitigate negative impacts and maximize positive impacts.

CDPH reviewed best and promising practices from around the country and also sought input from stakeholders on policy or process reforms that would advance racial and health equity and environmental justice. Community members offered their recommendations through small-group feedback sessions and a survey.

step 5 REPORTING: Develop a summary report to communicate findings and recommendations.

CDPH has made our materials associated with the HIA process – including the permit application, public comments, HIA meeting documentation, and underlying data – publicly available on our website. With this report, CDPH is sharing our analysis, interpretation, and recommendations.

step 6 MONITORING: Evaluate the effects of the HIA on the decision, implementation of the project, as well as community health effects.

CDPH is committed to applying the findings of the HIA to the ultimate RMG/Southside Recycling permit decision, as well as tracking the effects of this decision on the community. Our HIA includes a monitoring plan.

SCREENING & SCOPING

SCREENING

Screening was conducted by CDPH and U.S. EPA and was informed by discussions and input from environmental organizations, community groups and residents through town hall meetings held in July and December 2020 and written comments as part of the permitting process. The following factors supported the use of HIA for this decision-making process:

- **The potential to explicitly consider environmental justice and health equity in the review of this permitting decision;**
- **The opportunity to comprehensively review pertinent data not limited to just environmental impacts of the permitted facility, but existing and potential environmental, social and health impacts;**
- **The support of U.S. EPA;**
- **CDPH authority to review applications to determine whether or not to grant permits, request additional information, and recommend special conditions or mitigation strategies in the event a permit is granted; and**
- **The opportunity to highlight recommendations for broader policy and process change and to discuss these potential strategies with community partners.**

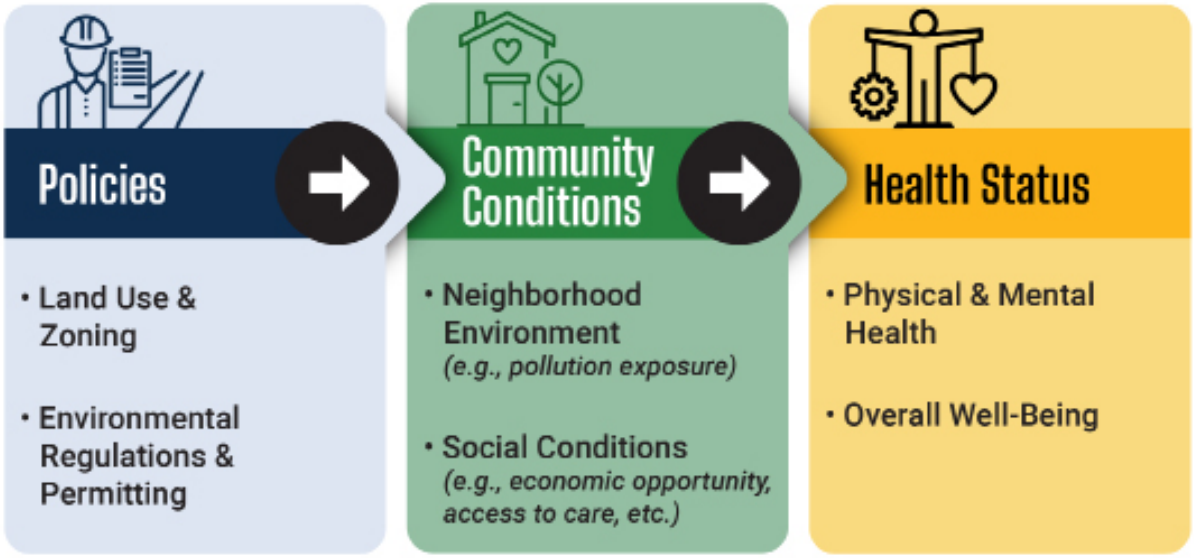
SCOPING

Scoping was conducted by CDPH and informed by guidance from the U.S. EPA, literature review, as well as discussions and input from environmental organizations, community groups and residents through community town hall meetings, review of written comments submitted as part of the permitting process, and public engagement sessions as part of the HIA process.

CONCEPTUAL FRAMEWORK, RESEARCH QUESTIONS, AND PATHWAY DIAGRAM

Assessing health impacts through a racial and health equity and environmental justice perspective requires moving beyond traditional risk assessment models that focus primarily on exposure to chemicals and their associated health effects. We must expand to consider how structural and social determinants of health – the conditions in which people are born, grow, live, work, and age – together with environmental pollution contribute to inequities in health and well-being. Indeed, the U.S. EPA has established that research is required to understand the extent to which these factors contribute to disproportionate risk and health inequities in overburdened communities, noting that this understanding of cumulative exposures must ultimately guide informed and effective regulatory and community-based decisions and interventions.[3]

In the absence of existing practice standards for applying cumulative impact assessment, CDPH was compelled to use the best available evidence, supplementing it with theory and promising practices. For the purposes of this HIA, we developed a conceptual framework for examining how industrial development affects conditions on the Southeast side, which in turn contribute to residents' health status.



Ecosocial Theory and the concept of embodiment helps us connect environmental exposures and outcomes. Because people incorporate biologically the conditions in which they live - history and context matter. We know that systemic racism permeates the systems and policies that shape community conditions, driving inequities and producing the lived realities of embodied (in)justice.[4,5] Similarly, the concept of weathering helps us understand the cumulative biological impact being chronically exposed to, and having to cope with, socially structured stressors.[6]

Because racial inequities can be perpetuated through policies like zoning and permitting, CDPH incorporated theory and elements from race equity impact assessment within this HIA. This approach is intended to broaden understanding of how structural and social determinants contribute to disproportionate risk and must be considered within an assessment of cumulative impacts of this permitting decision on already overburdened communities.

Tools such as race equity impact assessments (REIA), can help us unpack these connections between systemic racism, social determinants, and health inequities, and integrate explicit consideration of racial equity into decision-making.[7] One of the defining elements of REIA practice is asking who benefits and who is burdened, along with identifying strategies to mitigate unintended consequences and advance racial equity.

> **Approving GIII's permit will place another source of environmental pollutants in a mostly Latinx and Black community already burdened by serious health threats...It continues an unjust pattern of environmental racism and undermines our future aspirations for economically and environmentally sound planning across Chicago.**
>
> *Metropolitan Planning Council*

Therefore, in scoping our HIA, we developed research questions that blend traditional environmental and health risk assessment with emerging cumulative impact analysis and best and promising practices in racial equity impact assessment. This approach allowed us to take a holistic view of potential impacts and to identify how the permit decision would either reduce, maintain, or increase racial equity. Our research questions were:

1. ***What are the current community conditions on the Southeast side?***
2. ***What are the potential impacts (both positive and negative) of the proposed Southside Recycling operations for Southeast side residents?***
3. ***Who would benefit and who would be burdened by a decision to grant the permit?***
4. ***How could we minimize burdens and maximize benefits?***
5. ***What did we learn through this process about ways to improve City and other policies and practices to promote health and racial equity?***

! For more information about the resources we reviewed to develop our conceptual framework, see our Literature Review (Appendix B).

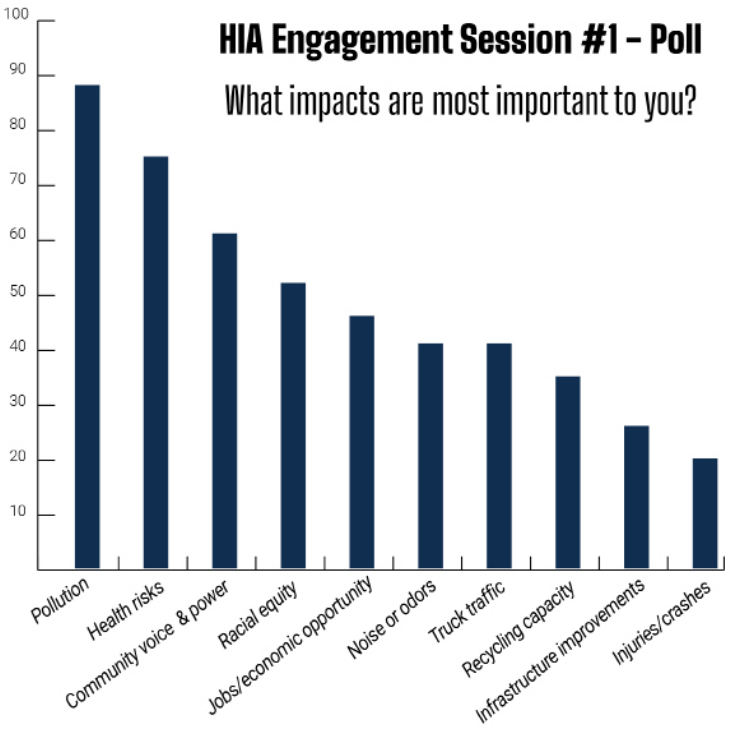
POTENTIAL IMPACTS

Within this framework, we examined issues and indicators that were of greatest interest to the community, as identified from public comments and direct input during the HIA process. Community town hall meetings were held in July and December 2020 and HIA engagement sessions were held in November and December 2021. There were also open public comment opportunities on both the Rules for Large Recycling Facilities and the RMG/Southside Recycling permit application. CDPH received over 4,000 written comments on the permit application. Some of these engagement opportunities preceded the start of the HIA process, but nonetheless yielded invaluable input on community concerns.

> "As a business owner myself in the 10th Ward, I would question why a city that is losing revenue and population daily would not be supporting a local business that has been in this community for over 29 years, they provide a living wage that feeds and supports local families and children."
>
> EAST SIDE CHAMBER OF COMMERCE

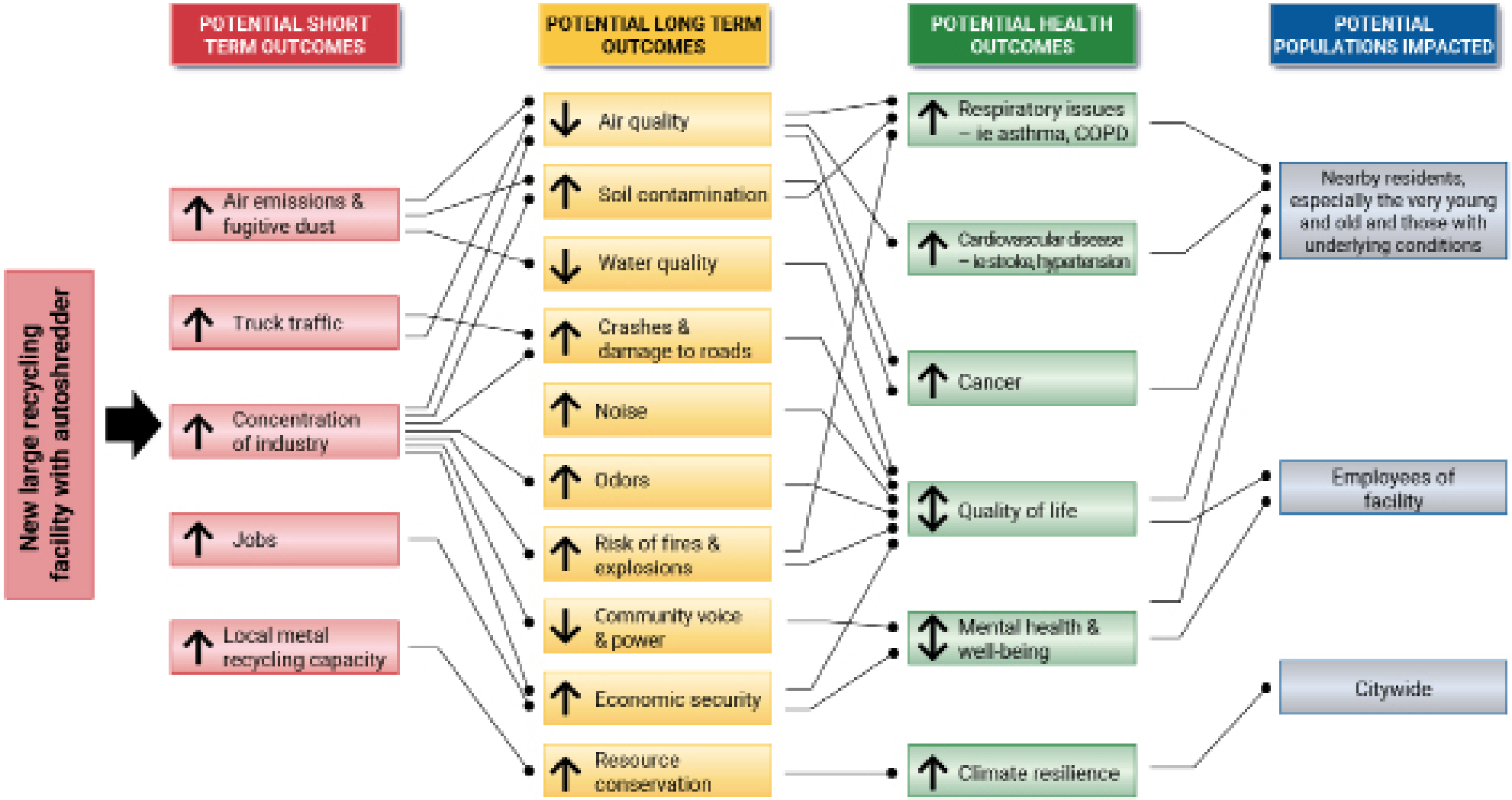
CDPH reviewed the extensive comments on the permit application submitted in writing and through town hall meetings. The themes of potential benefits and burdens that were raised by stakeholders during the permitting process were:

- **racial equity (focusing on the relocation from a predominantly white, high-income community to a predominantly Latinx, lower income community)**
- **safety**
- **air and water pollution – and mitigation of environmental impacts**
- **infrastructure changes**
- **truck traffic**
- **quality of life (e.g., noise, odors)**
- **job creation**
- **recycling capacity**



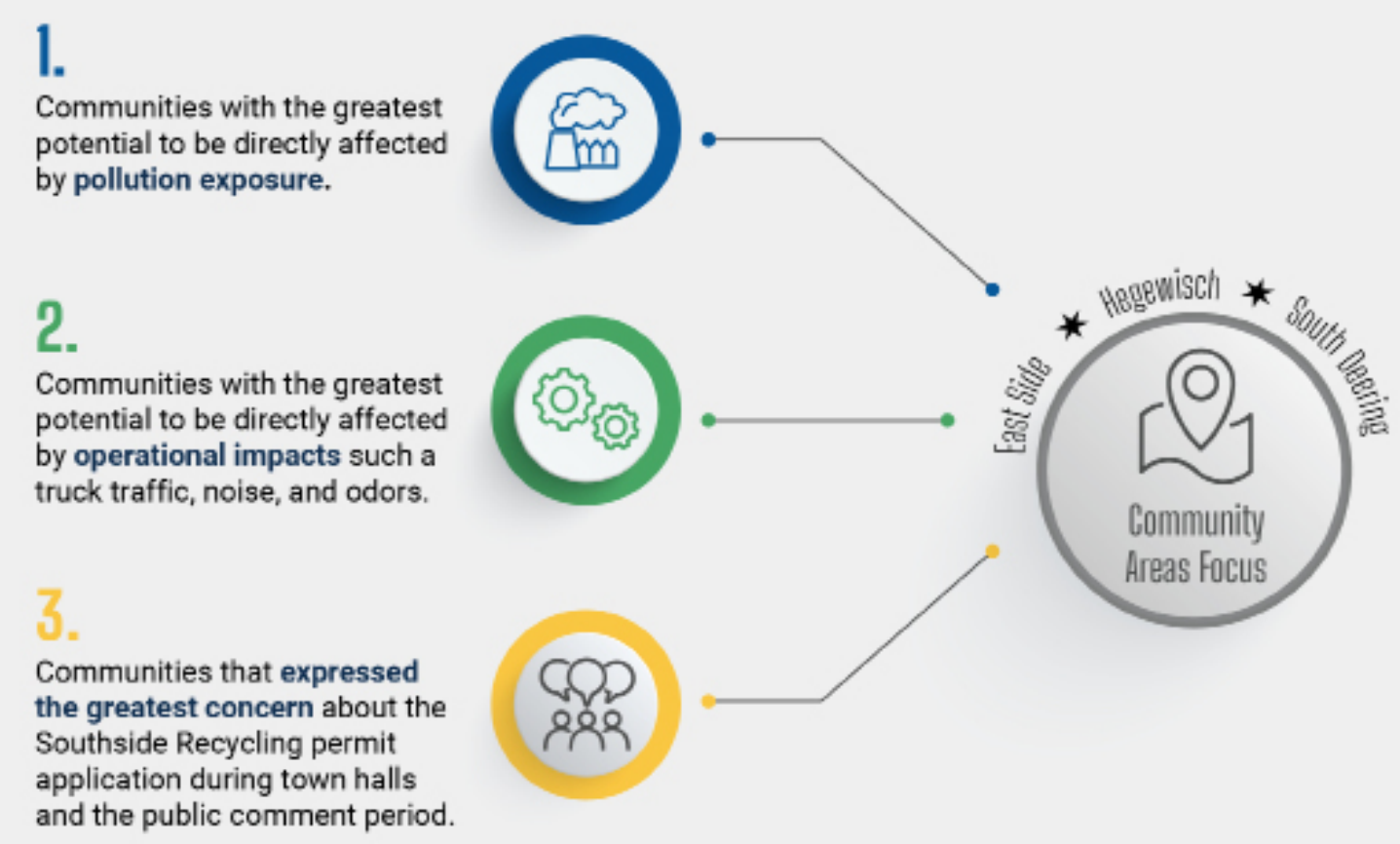
CDPH used these inputs to draft an initial pathway diagram, which we presented during the first HIA public engagement session held on November 4, 2021. At that time, CDPH polled participants about the impacts they were most concerned about. The choices were drawn from the benefits and burdens already identified through comments. Participants could select all that applied. By far the most selected responses were air pollution and health impacts with 75% and 65% of respondents selecting those options, respectively. The other top responses were racial equity (53%), community voice and power (45%) and jobs and economic opportunity (40%).

Following the meeting, CDPH finalized the Pathway Diagram, as shown below.



CDPH then used the Pathway Diagram to consider which communities would be most affected by the impacts to be assessed with this HIA. CDPH considered three factors to define a geographic scope.

Geographic Scope Factors



Ultimately, we determined to focus our HIA on the community areas of ***East Side, Hegewisch,*** and ***South Deering,*** which are geographically proximate to the Southside Recycling location. Within that area, we were attentive to populations that are most vulnerable to pollution exposure, including the young and old as well as people with underlying health conditions like heart and lung disease.

For a full discussion of how CDPH used community input to inform the HIA scope, see our Community Input Summary (Appendix C).

The work of Healthy Chicago 2025 requires a new approach, both to the process for how we make change and the values that guide our actions. This is how we'll ensure across all our priority areas that Chicagoans – especially Black and Latinx – have voice and choice in decisions that affect them and that disinvested communities receive equitable funding and support.

ASSESSMENT

METHODOLOGY

Based on this framework, CDPH applied a mixed-methods assessment approach to evaluate the current conditions and potential impacts – both positive and negative – of the proposed RMG/Southside Recycling facility. Data sources for this Assessment included the following:

Permit Application

The Southside Recycling permit application (as resubmitted to CDPH on January 13, 2021, following CDPH's deficiency letter) and information provided to CDPH in response to our subsequent information request. This includes modeling, mitigation plans, a traffic study, and the original zoning application, among other materials.

Community Input Summary

CDPH analyzed community input provided through two town halls, 4,000+ public comments, daily mainstream and social media monitoring, and facilitated small group discussions and surveys conducted during HIA public engagement sessions. See Appendix C. This input was used for both Scoping (as described above) and in the Assessment.

Existing Conditions Summary

To characterize current conditions on the Southeast side, CDPH analyzed quantitative data from various public health data sources, including but not limited to the American Community Survey (US Census Bureau); EJSCREEN (US EPA); PLACES (CDC); Illinois State Cancer Registry, Hospital Discharge Data, Birth Certificate Data, Death Certificate Data (IDPH); Healthy Chicago Survey (CDPH); and Land Use Inventory (CMAP). These data are presented in Appendix D. CDPH also referenced data provided in the U.S. EPA's Southeast Chicago Ambient Air Quality Analysis, the Air Quality and Health Report, and ATSDR Health Consultation to characterize current conditions on the Southeast side.

Environmental and Health Risk Assessment

CDPH and its environmental consultant, with direction from EPA, prepared a comprehensive inventory of emission sources, calculated potential emissions, modeled air dispersion and deposition of contaminants, and conducted on-site soil sampling, then used this information as inputs for a risk model. These data allowed us to characterize existing site conditions and predict how the proposed Southside Recycling operations – together with current RMG business operations on the property – would affect community health risks. See Appendix E.

Literature Review

CDPH reviewed relevant literature to help us analyze the environmental, health, and quality of life impacts of industrial facilities. A bibliography of our sources is included as Appendix B.

! All supporting documents for our assessments are included in the appendices. These documents provide detail about each assessment's methods, indicators, data sources, and limitations.

FINDINGS

Key findings from our assessment are summarized here by HIA research question.

1 What are the current community and health conditions on the Southeast Side?

For much of the 19th and 20th centuries, the Southeast side of Chicago was an industrial and economic hub for the city of Chicago – driven in part by the steel industry boom during and after World War II. When demand for steel declined and international competition increased in the 1970s and 1980s, steel mills closed and layoffs left the neighborhood more economically depressed. Today, residents of Southeast Chicago remain proud of the community's industrial and working-class heritage; however, they continue to grapple with a legacy of pollution and social issues that affect neighborhood conditions and resident health.

> **The Calumet Industrial Corridor includes at least 80 heavy manufacturing sites — chemical factories, plastics manufacturers, paint companies, landfills, recycling and waste management plants, railways.**
>
> *Washington Post, Oct. 22, 2021.*

! For the Existing Conditions Summary, CDPH characterized community conditions on the Southeast side as compared to other areas in the city. We summarize our key findings here, and the full assessment is included as Appendix D.

Community Demographics

According to the 2019 5-year American Community Survey estimates, Southeast side residents are predominantly people of color: South Deering – 96%, East Side – 86%, and Hegewisch – 65%. Between 5 and 15 percent of households (South Deering – 10.7%, East Side - 15.2%, Hegewisch – 5.0%) are linguistically isolated, meaning no household members 14 years and older speak English "very well," compared to the city overall at 8.4%. All three community areas rank as having moderate (Hegewisch – 62%) to high (South Deering – 94%; East Side – 85%) economic hardship, which takes into account factors such as unemployment, age dependency, education, per capita income, crowded housing, and poverty.

Within ½-mile from RMG:

- **1,799 people live in residential areas located downwind**
- **Population is 71% Hispanic or Latino**
- **Up to 37% of people speak primarily Spanish**
- **Sensitive populations include:**
  - **Students at Washington High School and Washington Elementary.**
  - **Daycare and Head Start Program that cares for infants as young as 6 weeks**

(ATSDR, Health Consultation)

Children and older adults are at increased risk of pollution-related health effects. Twenty-seven percent (13,179) of the total population in these community areas is less than 18 years old, while 14% (6,763) are 65 years and older. For comparison, Chicago's population is 21% under 18 years old and 12% 65 years and older. Southeast side community areas have lost 4% (1,721) of their total population since 2010, according to the 2020 US Census; Chicago had a two percent increase in population during this same time period.

Environmental Conditions

Community conditions on the Southeast side are affected by past and current presence of industry. In 2020, one-third of all air toxic releases in the city of Chicago, more than 300,000 pounds, were released from eight facilities located on the Southeast side, as reported to the US EPA Toxic Release Inventory Program. As of 2015, industrial land use on the Southeast side is 40 to 66% higher than in Chicago overall (CMAP Land Use Inventory). South Deering, East Side and Hegewisch are the top three community areas in 2020 most proximate to Superfund (toxic waste) sites among all Chicago community areas (US EPA EJSCREEN). Median home values on the Southeast side are at least one hundred thousand dollars less than the median home value in Chicago overall (2019 5-year American Community Survey).

> **'The city of Chicago has long used the Southeast Side and other lower-income communities of color … as dumping grounds for heavy and dirty industries,' said Nancy Loeb, director of Northwestern University's Environmental Advocacy Center.**
>
> *Washington Post, Oct. 22, 2021.*

The U.S. EPA provided an analysis of ambient air quality for Southeast Chicago. Their study found that, with the exception of ozone, the entire Chicago area is in attainment with the National Ambient Air Quality Standards (NAAQS). Over the past 10 years, concentrations of all pollutants measured at the Washington High School site on the Southeast side have either decreased or remained flat; however, concentrations of coarse particulate matter (PM10) have increased over the past three years. Annual averages of all metals measured at the Washington High School site have also been below relevant standards for the past 10 years. When compared to similar data collected across the Chicago area, Southeast Chicago:

- **ranks 6 of 12 for an annual PM2.5 design value;**
- **is tied for the highest daily PM2.5 design value;**
- **ranks 2 of 3 for the highest annual average PM10;**
- **ranks 4 of 10 for annual ozone design value; and**
- **has a lead design value equivalent to the only other lead site in the Chicago area.**

These data generally show that policies and enforcement efforts are improving air quality for the Southeast side, although more work is needed to address pollution – especially particulate matter.

Importantly, the report notes that the EPA recently announced that it is considering whether to strengthen the PM NAAQS.

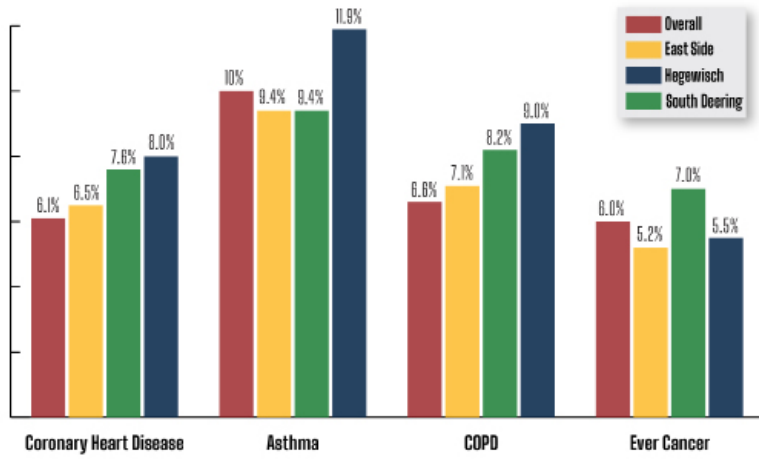
> **"…[A]vailable scientific evidence and technical information indicate that the current standards may not be adequate to protect public health and welfare. The strong body of scientific evidence shows that long- and short-term exposures to PM2.5 can harm people's health, leading to heart attacks, asthma attacks, and premature death. Large segments of the U.S. population, including children, people with heart or lung conditions, and people of color, are at risk of health effects from PM2.5."**

Health Conditions & Access to Care

Air pollution contributes to increased risk of chronic disease, which is the leading driver of Chicago's nine-year life expectancy gap between Black and White residents and decreases in life expectancy in the Latinx population. In 2019, life expectancy for the Southeast side neighborhoods is 74.0 years in South Deering, 77.2 years in Hegewisch and 78.3 years in East Side. Chicago's overall life expectancy is 77.3 (IDPH Death Certificate Data). All three Southeast side community areas rank in the bottom half of all Chicago's community areas for life expectancy.

As of 2018, the population on the Southeast side had higher rates of chronic conditions such as coronary heart disease (CHD) and chronic obstructive pulmonary disorder (COPD) in adults than the Chicago average. The Southeast side neighborhoods have higher rates of asthma, COPD and CHD than more than half of all Chicago community areas (CDC PLACES). These findings may underrepresent actual disease prevalence on the Southeast side, as these conditions are self-reported and people may be less commonly diagnosed due to a comparative lack of access to care.

Chronic Disease and Cancer Rates:
Southeast Side Compared to Chicago Overall



Percent of respondents who answered yes to the following questions from the 2018 BRFSS Questionnaire: "Ever told you had angina or coronary heart disease?", "Ever told you had a stroke?", "Ever told you have asthma?" and "Do you still have asthma?", "Ever told you had any other types of cancer?", and "Ever told you have chronic obstructive pulmonary disease, COPD, emphysema or chronic bronchitis?"

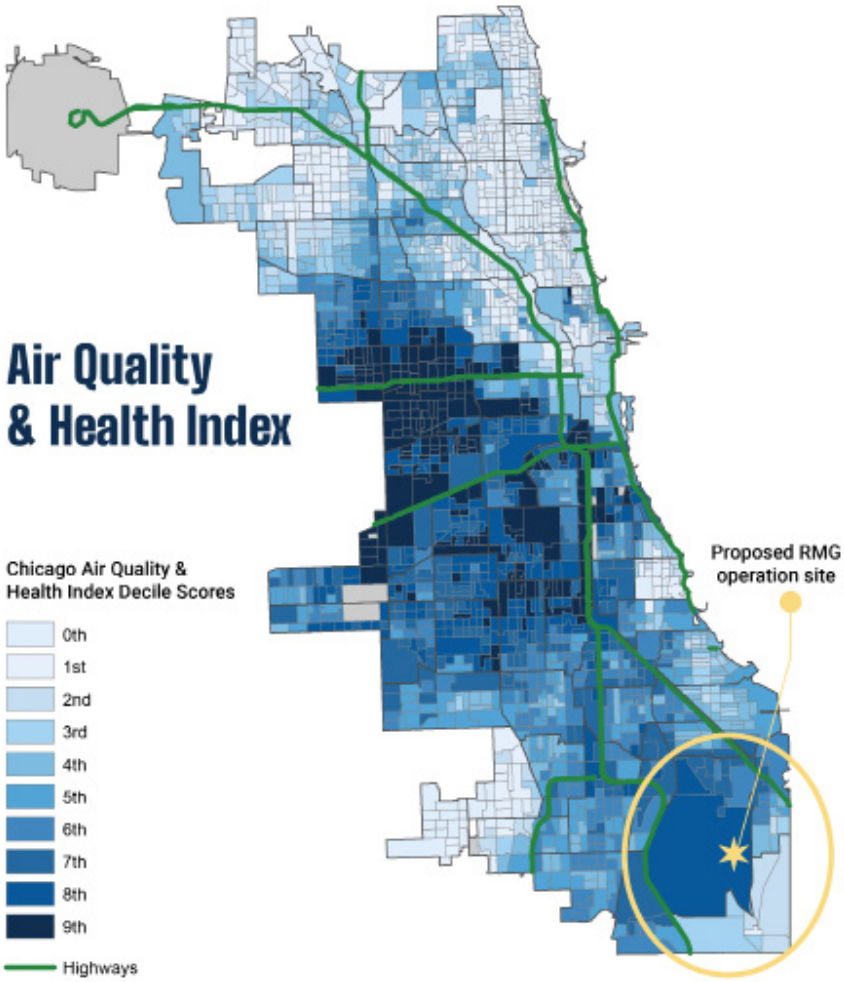
An important measure of quality of life is how people feel about their own physical and mental health. The percentage of adults with poor self-reported physical health in 2018 was 17.8% in South Deering, 14.6% in East Side, and 14.2% in Hegewisch. Furthermore, the percentage of adults with poor self-reported mental health in 2018 was 16.4% in South Deering, 14.3% in East Side, and 13.1% in Hegewisch (CDC PLACES). For both poor physical and mental health, the three Southeast side community areas are above the citywide average.

Socioeconomic inequities and insurance status often determine how available health services are and how much they are utilized in a community. Uninsured rates range from 8.1% to 10.4% in neighborhoods on the Southeast side, compared to Chicago's overall uninsured rate of 9.7%. South Deering, East Side and Hegewisch have higher uninsured rates than more than half of all Chicago community areas (2019 5-year American Community Survey). For 2016-2018, the percentage of Chicago adults who have a primary care provider in the Southeast side was 67.3% in East Side, 69.2% in South Deering, and 78.8% in Hegewisch. For comparison, Chicago overall is 80.5%. Correspondingly, the Southeast side is a designated Health Professional Shortage Area with only two community health centers (2022 US HRSA).

"Community members living with environmental contamination may experience chronic stress, which can be compounded by feeling dismissed, powerless, unheard, or unsupported. In a community like southeast Chicago, stress is a normal reaction to environmental contamination; however, chronic stress can pose physiological health risks on top of the health risks associated with exposure to contaminants." ***(ATSDR, Health Consultation)*.**

Overall Community Vulnerability

CDPH sought to understand, overall, how vulnerable Southeast side community members are to negative health effects from pollution exposure, particularly relative to other areas of Chicago, based on underlying health and social conditions. This is a critical part of an environmental justice and racial equity analysis. Based on the Air Quality and Health index, certain Census block groups in East Side and Hegewisch rank among the highest in Chicago for vulnerability to air pollution.

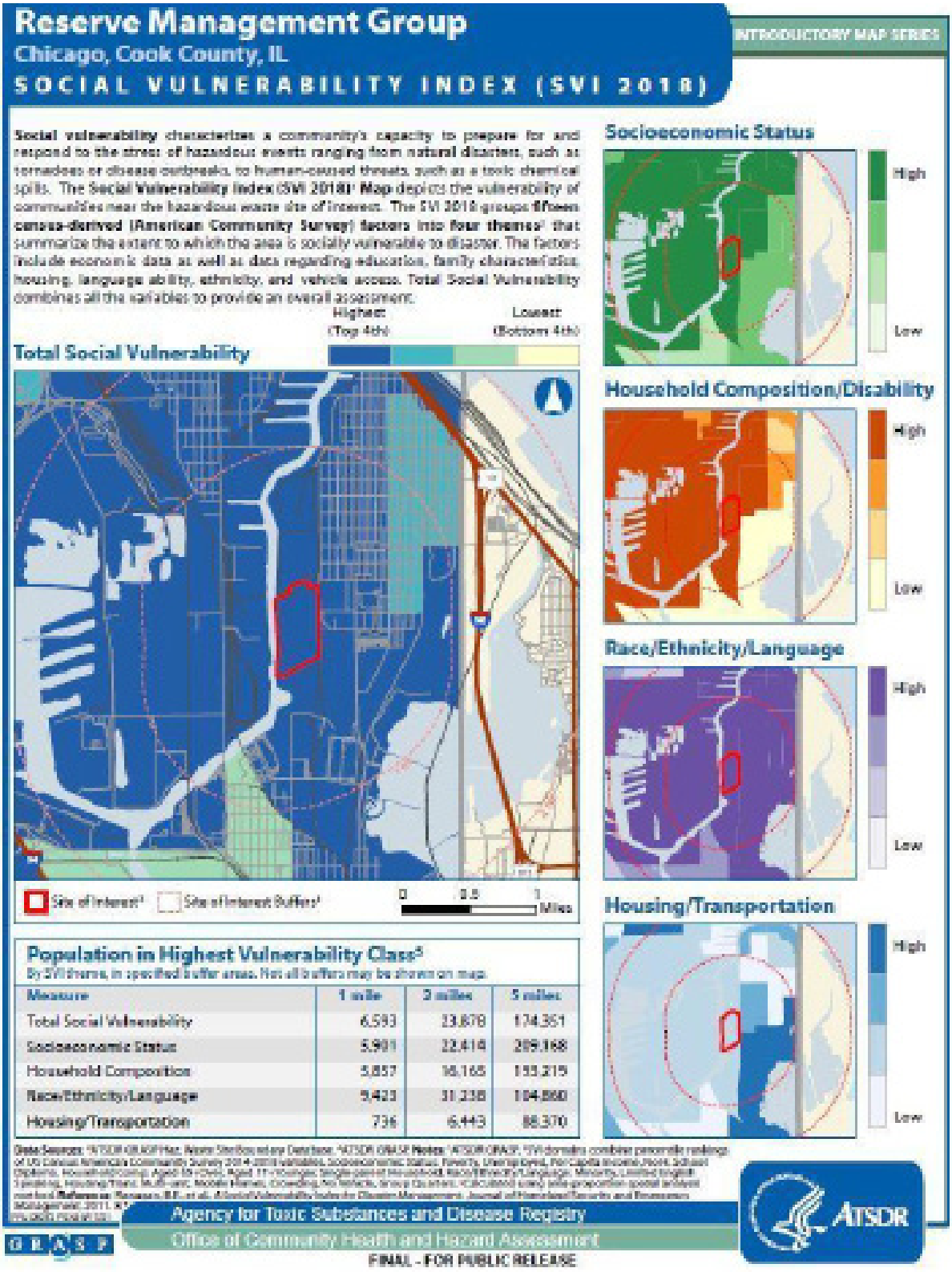


The U.S. EPA reached a similar conclusion about community vulnerability based on their EJSCREEN, a tool that provides a nationally consistent dataset and approach for combining environmental and demographic indicators.

> **The EJ Index for all eleven EJSCREEN indicators in the three-mile area around the proposed RMG site exceeds the 80th percentile in the State of Illinois, including indices for PM2.5, ozone, diesel PM, air toxics cancer risk, respiratory hazard, lead paint, and Superfund proximity. The population of the people who live in the area around the proposed RMG plant is disproportionately low income, people of color, and includes persons with limited English proficiency and less than high school education. The proposed RMG site is in an area that is already heavily populated by industrial facilities and is in close proximity to residential housing and community centers. (Southeast Chicago Ambient Air Quality Analysis)**

Additionally, the Agency for Toxic Substances and Disease Registry (ATSDR), which is a federal public health agency overseen by the director of the U.S. Centers for Disease Control and Prevention (CDC), conducted a Health Consultation to analyze possible environmental exposures from past and current recycling activities at RMG and other industrial sources within one mile of the site.

ATSDR created social vulnerability index (SVI) maps to characterize the community. The SVI indicates that the community adjacent to RMG is in the top quartile for vulnerability.



Source: ATSDR, Health Consultation

ATSDR also reached the following conclusions about the health impacts of particulate matter and metals in the air on the Southeast side[8]:

Conclusion 1: Based on recent air monitoring data (2016-2020), ***breathing PM10 and PM2.5 could be harmful for highly sensitive people,*** especially if they live downwind from RMG and other industrial and commercial sites. Highly sensitive populations are people who have pre-existing heart and lung conditions like asthma, heart disease, or chronic obstructive pulmonary disease (COPD). Highly sensitive individuals exposed to PM over short periods of time (24-hours) and long periods of time (several months) are susceptible to respiratory symptoms and an exacerbation of lung and heart disease. ATSDR does not expect people without these pre-existing conditions living near RMG to develop health problems from breathing PM in the air.

Conclusion 2: Based on recent air monitoring (2015-2020) and historic data (1982-2015), people living downwind of RMG (now or in the past) ***are not likely to develop health problems from breathing metals in the air.*** The metals we looked at include arsenic, cadmium, chromium, lead, manganese, and nickel. It is not likely that people will experience an increased risk of cancer or other health problems from breathing the metals.

This report did not address any potential health effects of soil pollution outside of the RMG property, as sampling has not previously been conducted in the community.

2 What are the potential impacts of the proposed Southside Recycling operations for Southeast side residents?

To answer this question, CDPH focused on the impacts of greatest interest to community members. As described in the Scoping section, we identified themes through a qualitative analysis of public comments elicited during the permitting process as well as polling and small group discussion during the HIA engagement sessions, and ultimately developed a Pathway Diagram to represent the substantive issues that were most frequently mentioned. We then categorized impacts from the Pathway Diagram into three domains: Quality of Life, Environment, and Health.

For each potential impact, we reviewed existing data sources and determined whether additional information was needed to assess how the proposed operation of Southside Recycling would affect community members. We analyzed the magnitude of each impact and rated its direction, sorting these into categories: negative impact, potential negative impact, maintain status quo, potential positive impact, or positive impact. We then identified who would experience the impacts (i.e. who benefits or is burdened). ***We note that, in an already overburdened community, even to maintain the status quo is to perpetuate existing health and racial inequities.***

> I am a Social Science teacher at Washington H.S., which is located less than HALF a mile from the proposed facility. I worry about the detrimental effects on my students due to the increased level of particulate matter that would be released into the air, not to mention increased diesel truck traffic and noise.
>
> *- Donald Z. Davis*

! Our findings are summarized below, with additional detail provided in the relevant appendices.

Quality of Life Impacts

	Assessment Findings	**Impact** Rating	**Who is** Impacted	**Data** Sources
Traffic & street conditions	During weekday morning peak hours, there would be 70 new trips (personal vehicles and trucks); at weekday evening peak hours, there would be 30 new trips. The traffic study shows that this would maintain an adequate level of service at nearby intersections.	Negative impact	Southeast side residents	• Permit Application
Economic development & job opportunity	Southside Recycling would employ in excess of 100 people (35 jobs currently unfilled). The company will prioritize hiring from the community and continue to support small recyclers, many of which are led by people of color.	Positive impact	Company & employees	• Permit Application • Company self-report
Noise	Modeling indicates that the operations will not cause noise above standards outside of the manufacturing district boundary but did not account for noise from any potential explosions.	Potential negative impact	Southeast side residents	• Permit Application
Concentration of industry	Southside Recycling would bring a new metal recycling facility to the area. This would continue a trend of industrial development rather than shift to a different type of land use as proposed by some community members.	Negative impact	Southeast side residents	• Community Input Summary (Appendix D)

Positive impact · Potential Positive impact · Maintain status quo · Potential negative impact · Negative impact

Environmental Impacts

	Assessment Findings	Impact Rating	Who is Impacted	Data Sources
Recycling Capacity	Under its current proposal, Southside Recycling has the capacity to process up to 500 tons per hour of obsolete metal products.	Positive impact	Citywide	• Permit Application
Explosions/ Fires	Explosions/fires are an inherent risk for any metal shredding operation. The permit application includes a Feedstock Management Plan and the RTO system is equipped with controls to prevent explosions. But the risk cannot be reduced to zero.	Potential negative impact	Southeast side residents	• Permit Application
Water Pollution	Industrial facilities on the riverfront pose a risk for pollution. Application includes a Stormwater Pollution Prevention Plan to reduce potential stormwater contamination. Facility treats water before it drains to the City sewers.	Potential negative impact	Southeast side residents	• Permit Application • Environmental & Health Risk Assessment (Appendix E)
Soil Pollution	On-site soil sampling identified lead concentrations on the RMG property that exceed the industrial Removal Management Level. This presents a risk to workers as well as the potential for particles to be blown or tracked off the site.	Potential negative impact	Southeast side residents	• Environmental & Health Risk Assessment (Appendix E)
Air Pollution	Emission sources at the site include the stockpiling, loading, and unloading of materials; onsite operations such as the crushing, shredding, screening, cutting scrap metal; and mobile equipment and vehicles. Emissions consist primarily of particulates, volatile organic compounds (VOCs), and other gases such as nitrogen oxides (i.e., NOx). Emissions from the shredder will be treated using various pollution control devices, including an RTO, roll-media filter, and scrubber. Dust controls include watering materials and cleaning pavements with a street-sweeper, dust cannons to suppress airborne dust as well as covered conveyors and dust collection and treatment systems. Even with controls in place, emissions are not entirely prevented.	Negative impact	Southeast side residents	• Environmental & Health Risk Assessment (Appendix E)

Positive impact · Potential Positive Impact · Maintain status quo · Potential negative impact · Negative impact

Health Impacts

	Assessment Findings	**Impact** Rating	**Who is** Impacted	**Data** Sources
Carcinogenic Risks (Cancer)	Human health risk assessment modeling does not indicate an increased risk of cancer due to Southside Recycling and other RMG businesses on the property. South Deering and Hegewisch are in the top half of all Chicago neighborhoods for cancer rates.		Southeast side residents	• Environmental & Health Risk Assessment (Appendix E)
Acute & Chronic Risks (Non-cancer)	Human health risk assessment modeling does not indicate an increased risk of adverse health effects (non-cancer acute and chronic risks) due to Southside Recycling and other RMG businesses on the property. The Southeast side community areas are in the top half of all Chicago neighborhoods for current rates of chronic disease (COPD, asthma, heart disease).		Southeast side residents	• Environmental & Health Risk Assessment (Appendix E)
Mental Health & Wellbeing	Living near industrial activity negatively impacts mental health. This impact is both direct and mediated by individuals' perceptions of neighborhood disorder and personal powerlessness, and the impact is greater for minorities and the poor than it is for whites and wealthier individuals.		Southeast side residents	• Community Input Summary (Appendix C) • Literature Review (Appendix B)

3 Who would benefit and who would be burdened by a decision to grant the permit?

CDPH asked stakeholders to help answer this question in small group break-out sessions during the second HIA engagement session on December 9, 2021 (Community Input Summary, Appendix C).

When we analyze impact by who experiences benefits or burdens, we find that overwhelmingly, burdens would accrue to residents of the Southeast side community. As described in the existing conditions section, the Southeast side of Chicago is already an overburdened community ranking high for vulnerability to pollution, based on current health, environmental, quality of life and socioeconomic factors.

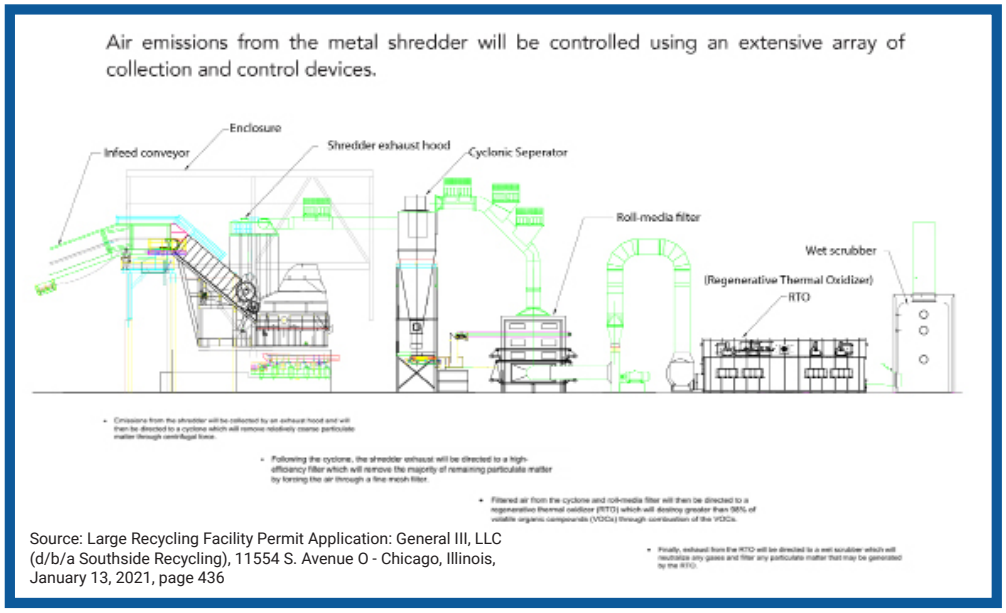
Conversely, the company and its employees would enjoy the benefits of the increased economic and job opportunity (with a potential for benefits to accrue to residents only if the company hires from within the Southeast side community), while the city overall would benefit from increased metal recycling capacity and reduced waste.

CDPH's commitment to promoting health and racial equity means that CDPH must carefully consider this analysis of disproportionate burden being placed on an already overburdened community.

4 How could we minimize burdens and maximize benefits?

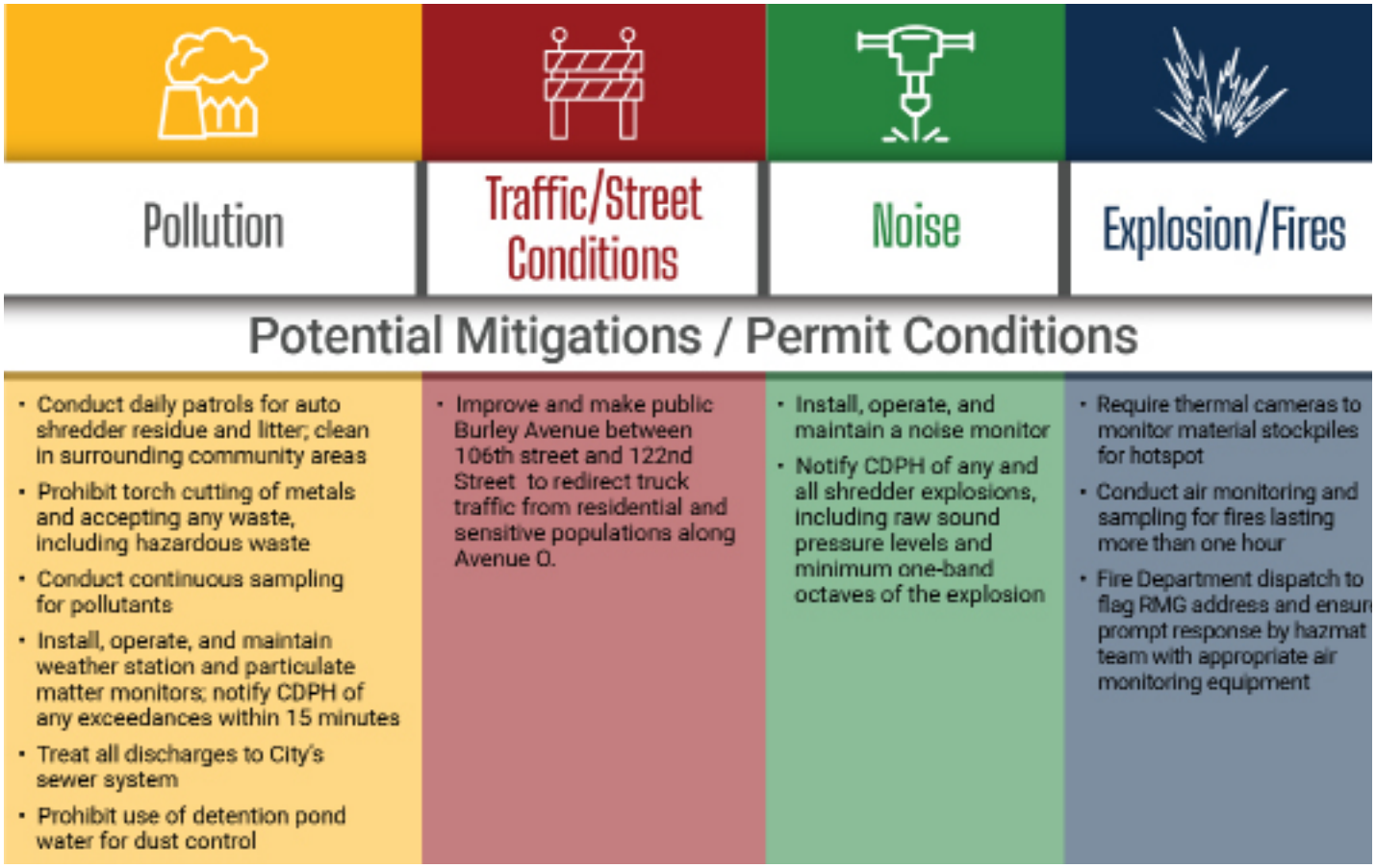
Southside Recycling's permit application includes commitments to pollution control equipment and design features that are intended to prevent harmful emissions from the facility and to preserve quality of life for residents. The shredder is located approximately 2,500 feet from the nearest public right of way. The facility would operate with a regenerative thermal oxidizer (RTO), wet scrubber, roll-media filter, and other equipment that capture emissions and prevent combustion. The shredder is enclosed to contain noises and dust, and a wall of shipping containers and more than 200 newly planted trees provide additional buffers for the community.

RMG has paved large sections of its property to reduce dust from on-site vehicle travel and proposed a traffic management plan that will keep trucks from queuing on public roads.



Source: Large Recycling Facility Permit Application: General III, LLC (d/b/a Southside Recycling), 11554 S. Avenue O - Chicago, Illinois, January 13, 2021, page 436

In addition to the measures proposed by RMG, CDPH could impose new requirements in the form of permit conditions to address community burdens. Potential mitigations could include, for example:



These steps could help to offset the most significant environmental, health, and quality of life impacts. However, permit conditions are only effective to the extent that they are implemented as required by RMG – and mitigations would not address community concerns related to the continued concentration of industry in their neighborhoods.

5 What did we learn through this process about ways to improve City and other policies and practices to promote health and racial equity?

As part of the HIA public engagement process, CDPH heard from many stakeholders about the need to improve processes and policies to advance racial and health equity and environmental justice and to better include community voices. Our recommendations incorporate this feedback, and fall into three areas:

1. Increase monitoring, enforcement, and environmental protections for the Southeast side.
2. Embed cumulative impact principles in zoning, permitting, and enforcement and engage the community in decision-making.
3. Expand and enhance use of health and racial equity impact assessments to inform decision-making.

See RECOMMENDATIONS FOR OTHER POLICY OR PROCESS CHANGE for more information.

ADDITIONAL ASSESSMENT FINDINGS: COMPLIANCE ISSUES

During the course of this HIA, CDPH collected additional materials – including maps, reports of material receipts and shipments, and site samples – to help us better understand the proposed Southside Recycling facility as it relates to businesses currently operating on the campus. Our review brought to light compliance issues and apparent violations with the potential to adversely affect the environment, health, and quality of life on the Southeast side, including:

COMPLIANCE ISSUE	DESCRIPTION
Exceedances of permitted capacity.	Based on information provided in response to CDPH's request, it appears that Reserve Marine Terminal (RMT) received more recycling material than was allowed under its permit on multiple occasions between 2018 and 2020. CDPH places caps on material volume both to reduce potential emissions from the recycling process as well as truck traffic to and from the site on a daily basis – which is itself another source of pollution. By exceeding its permitted capacity, the company is effectively circumventing these controls.
Failure to obtain appropriate permits for foundry sand operation.	RMG installed and began operating regulated equipment and regulated areas before applying for or receiving any air pollution control permits for a foundry sand operation. The company also repeatedly represented to CDPH that the operation was conducted indoors; however, CDPH observed that storage of foundry sand and at least one piece of equipment is clearly outdoors. In subsequent investigation, CDPH and the U.S. EPA determined that these foundry sand piles are located in the same area where a recent increase in coarse particulate matter (PM10) has been observed on the Southeast side over the last three years. Beyond this direct impact on local environment, this finding indicates that RMG is not following the rules regarding proper materials storage, which will be an essential component of the Southside Recycling operation.
Failure to control dust.	On June 27, 2019, a CDPH inspector issued a notice of violation to RMT for failure to control dust during barge loading and unloading activities at the site. RMT pled liable to the permit violation at Administrative Hearings on September 5, 2019. Proper dust suppression - including watering, sheltering dust-emitting activities, and enclosing materials that are susceptible to becoming wind-borne - is an essential aspect of pollution control for the proposed Southside Recycling permit.
Failure to notify CDPH of IEPA Notices of Violation.	On December 20, 2019, the Illinois Environmental Protection Agency (IEPA), Bureau of Air, issued South Chicago Property Management, Ltd a Notice of Violation (NOV) for several violations, including RMG's failure to apply for required permits, failure to pay fees, and failure to submit annual emissions reports to IEPA. RMG did not notify CDPH about these violations as required by its permits.

COMPLIANCE ISSUE	DESCRIPTION
Additional site concerns and lack of cooperation.	RMG has not taken necessary steps to immediately identify, report, and address unsafe site conditions that could affect the environment or health of its workers and the surrounding neighborhood. Further, CDPH has great concerns regarding the company's behavior and lack of responsiveness throughout the permit review process. • **Soil sampling results.** CDPH and its environmental consultant conducted soil sampling to inform the HIA, as well as two other pending permit applications from RMG. Company personnel disrupted the sampling team as they performed their duties with frequent verbal interruptions and harassment. Laboratory analysis of the sample subsequently revealed lead levels that exceeded the Removal Management Level (RML) for industrial soil. These high levels present a risk to workers at the site, as well as to the community due to track out from trucks or from particles that become wind-borne. • **Building collapse.** A large warehouse collapsed on the RMG property in April 2021. RMG did not notify the City until July 2021, at which point CDPH conducted an inspection and confirmed the presence of asbestos-containing material (ACM). CDPH issued RMG a ticket (currently pending at the Department of Administrative Hearings) for failing to properly maintain ACM. • **Unpermitted recycling activities.** In December 2021, CDPH observed recyclable materials consisting of small iron fragments and fines on an unpermitted area of the property. RMG admitted that this material was generated from the breaking and screening of large pieces of scrap metal (iron) at the RMT operation on the northern part of the site and then trucked to the southern part of the property for further processing. However, this activity was not included in any of RMG or RMT's permit materials. • **Lack of responsiveness.** Throughout the permitting process, RMG delayed or failed to provide requested information, such as emissions calculations and process flow diagrams.

CDPH's regulations require that we consider a company's compliance history as part of our review of any recycling facility permit application. RMG's track record in operating similar facilities within this campus gives CDPH reason to consider the unpredictable risks and hazards associated with large metal recycling more heavily in assessing the likelihood of adverse outcomes for this already overburdened community.

SUMMARY OF KEY FINDINGS

In this section, we provide a summary of overall findings. Our HIA findings indicate that:

- The Southeast side includes certain areas that are made more vulnerable to pollution than Chicago overall due to underlying health conditions and social factors, which often reflect structural racism and institutional inequities.
- Current pollution levels may be causing negative health effects for highly sensitive populations.
- Large metal recycling processes such as those proposed at Southside Recycling pose certain intrinsic uncertainties and unique risks to the environment, health, and quality of life.
- These risks can only be adequately mitigated by operating in accordance with strict permit conditions, including but not limited to thru-put caps, proper material storage practices, site access for inspections, and timely reporting and management of unsafe conditions.
- The history of RMG's operation of the site, which has been problematic, does not provide CDPH with confidence that the company will run the site in strict compliance with permit conditions, which CDPH considers essential for avoiding negative impacts on the environment, health, and quality of life for residents of the Southeast side.

Therefore, issuance of the RMG/Southside Recycling permit would exacerbate health inequity.

RECOMMENDATIONS

This HIA has two sets of recommendations; one related to the RMG/Southside Recycling permit decision (the focus of our HIA) and the other related to broader policy and process changes needed to advance health equity outcomes.

The following recommendations are based on HIA findings, including the Community Input Summary (see Appendix C).

RECOMMENDATION FOR THE RMG/SOUTHSIDE RECYCLING PERMIT DECISION

CDPH reviewed the U.S. EPA's environmental justice practice standards, civil rights law, racial equity impact assessment models, and relevant City regulations to identify several factors to aid our recommendation on the RMG recycling permit decision:

Extent of current community burden and vulnerability

As compared to Chicago overall, many Southeast side residents are made more vulnerable to the health effects of pollution based on their health and social status. Recent research shows increased health risks from exposure to even low levels of particulate matter in the air. Prior to the proposed operation of Southside Recycling, ATSDR finds that highly sensitive groups may be harmed by the particulate matter pollution currently caused by RMG and other local industries. Even incremental additional emissions would exacerbate this harm.

Extent of potential benefits to people who live on the Southeast side

The assessment findings indicate that there are two primary benefits of Southside Recycling: the expansion of scrap metal recycling capacity in the city of Chicago as well as continued economic development on the Southeast side. The City of Chicago's Waste Strategy includes a commitment to reducing residential as well as industrial, commercial, and institutional waste. The presence of Southside Recycling as part of the city's recycling ecosystem would contribute to that goal, thereby benefiting all Chicagoans.

Continued economic development on the Southeast side would contribute to an expanded tax base, additional patronage for area businesses, and job opportunities for up to 35 new employees with the potential to earn head-of-household wages. These benefits accrue to Chicago overall, but also to certain Southeast side community members. RMG has further made or planned site improvements and community investments that benefit its neighbors including an on-site food pantry, trees, and street paving. While the Southside Recycling proposal has received support from certain individuals – including current RMG employees, as well as area businesses – based on the economic opportunity Southside Recycling could represent, other community members objected to a false choice between jobs, economic development, and a healthy neighborhood environment.

Extent of potential negative impacts on environment, health, and quality of life that cannot be adequately addressed through mitigations

Day-to-day environmental, health, and quality of life burdens would be felt most acutely by people of color and those with underlying conditions who live on the Southeast side. Community members would experience the direct impacts of increased pollution exposure, traffic, and associated health effects.

With strong permit conditions in place, our assessment indicates that the magnitude of Southside Recycling's impacts could be reduced in some cases. However, mitigations cannot eliminate certain

inherent risks of large metal recycling processes – for example, explosions due to undetected chemical compounds – that carry potentially severe consequences. They also do not ameliorate the negative effects on mental health and well-being reported by affected community members and borne out by research.

Additionally, when the proposed Southside Recycling operation is considered as contributing to the cumulative burden experienced by the surrounding neighborhoods, it has the potential to exacerbate pre-existing environmental, health, and quality of life impacts associated with industrial development on the Southeast side. This is particularly true if RMG continues its pattern of failure to rigorously adhere to permit conditions. Many community members and their allies have protested the operation of Southside Recycling in their neighborhood on this basis.

Actions of the company, including compliance history

During the HIA process, CDPH directly observed or became aware of several instances of RMG's failure to comply with City regulations and existing permit requirements to the detriment of the surrounding community. Given the additional environmental, health, and quality of life burdens that a large recycling facility could present for the Southeast side, CDPH should only grant a permit if it is confident that RMG would operate Southside Recycling in accordance with strict permit conditions that address these issues. The history of non-compliance exhibited here – even when the company was aware that it was under scrutiny for the HIA – indicates that the company is not currently acting in the best interest of the community and CDPH is not confident that it will do so with respect to Southside Recycling.

PERMIT RECOMMENDATION

As HIA findings indicate that the RMG/Southside Recycling permit would exacerbate health inequity, CDPH concludes that it *should not grant* the RMG/Southside Recycling permit.

RECOMMENDATIONS FOR OTHER POLICY OR PROCESS CHANGE

As part of the HIA, CDPH reviewed best and promising practices from around the country and also sought input from stakeholders on policy or process reforms that would advance racial and health equity and environmental justice.

In our HIA engagement sessions, participants prioritized three areas for action to ensure progress beyond this immediate permitting decision (see Community Input Summary, Appendix C).

1 Increase monitoring, enforcement, and environmental protections for the Southeast side.

Increased monitoring

Community residents and environmental organizations called for improved access to reliable local air quality data. In response, CDPH has already allocated federal recovery funding to expand local air monitoring capabilities across the city - with an emphasis on overburdened communities - over the next two years. Once installed and baselined, data from the monitors will be made publicly available and incorporated into our public health and environmental surveillance and reporting.

Improved enforcement

Since 2014, the U.S. EPA – in cooperation with Illinois EPA and CDPH - has investigated over 75 companies to determine if they are in compliance with the Clean Air Act. Stringent regulation and targeted enforcement have already led several Southeast side facilities to make improvements or cease operations entirely; for instance, KCBX Terminals halted operations at its North Terminal, S.H. Bell implemented facility improvements, and Watco Terminal and Port Services no longer receive manganese in bulk handling operations (U.S. EPA Southeast side Ambient Air Quality Analysis). Our agencies will continue to collaborate on enforcement efforts at facilities on the Southeast side and throughout the city to ensure they are in compliance and to protect the community from adverse impacts.

CDPH has also already begun making internal process changes to focus more enforcement efforts on higher risk air pollution-related activities, with a goal of ensuring our own limited inspection and enforcement resources are focused where they are most needed. This work ranges from assessing the appropriate inspection frequency of permitted facilities to using community vulnerability data to prioritize inspection activities. We are working now, for example, on updating our inspector procedures and training to include additional guidance on prioritizing inspections, issuing warnings, recording complaint inspections and following up on violations.

Enhanced environmental protections.

CDPH intends to publish new, strong rules for facilities that process demolition and construction debris (known as “rock crushers”), air permit facilities, and general recycling facilities to ensure that facilities with the potential to impact surrounding communities are subject to monitoring, reporting and control requirements.

CDPH will continue to work with agencies such as IEPA, US EPA and ATSDR on strengthening environmental protections and ensuring that industries are held accountable, potentially including additional monitoring and sampling throughout the community.

2 Embed cumulative impact principles in zoning, permitting, and enforcement and engage the community in decision-making.

Zoning and land use policies, including recent reforms to update the Industrial Corridor system and trends in deindustrialization, play a role in the concentration of industry in parts of the city. The City's Air Quality Zoning ordinance takes a step in the right direction to ensure that public health is considered early in the zoning process. However, feedback from community engagement suggested that additional reforms to permitting and zoning processes are needed to explicitly include considerations of cumulative impact, improve transparency, and involve the community in decision-making.

Addressing cumulative impacts requires an understanding of the multiple sources of pollution in a community, their combined health risks, and the underlying health and social vulnerabilities of area residents. CDPH has dedicated federal recovery funding to conduct a foundational cumulative impact assessment and refine it with new data over the next two to three years. As CDPH and partners develop best practices around cumulative impact, these findings can be used to develop a policy, in collaboration with other City departments and community stakeholders, that formally incorporates consideration of cumulative impacts into decision-making and ensures community voice in the process. The Mayor has already directed the City's Chief Sustainability Officer and CDPH to propose a new cumulative impact ordinance for consideration by the City Council.

In this effort, CDPH will look to national examples of cumulative impact policies affecting land use and permitting. Newark, New Jersey, in particular, provides a template for consideration of cumulative impacts in the zoning process. Newark's Environmental Justice and Cumulative Impacts Ordinance, passed in 2016, requires applicants for zoning approval of commercial or industrial uses to complete an environmental checklist with details about potential impacts to air, water, truck traffic, nuisances and more. Applicants must also include information about existing environmental and social conditions where they propose to locate based on the Environmental Resources Inventory - a detailed, citywide baseline assessment developed by sustainability and planning staff. The information about current conditions and added burden is then provided to the Zoning or Planning Board for consideration in their final decision on land use approval.

> **"Black, Latino and American Indian communities across the country continue to feel targeted and expected to carry a heavier burden no matter the consequences. In North Charleston, S.C., hundreds of people in a mostly Black community could lose their homes if a freeway interchange is expanded. In Dallas, a mountain of toxic waste rose illegally on the edge of a Black neighborhood and took extraordinary pressure to get removed."**
>
> *Washington Post, Oct. 22, 2021.*

Cumulative impact policies generally share features of robust community engagement through public notification, public meetings and extended public comment periods. Also, their development involves community voice from the outset. Based on feedback gleaned through this HIA, any proposed framework for considering cumulative impacts in the zoning process should be developed with stakeholders and incorporate similar engagement elements. We look forward to working with community and environmental groups and other City departments on our local approach, and with the Illinois and U.S. EPA as those agencies develop new policies.

3 Expand and enhance use of health and racial equity impact assessments to inform decision-making.

During public engagement sessions and in written comments, stakeholders provided valuable input on ways to conduct HIAs in alignment with Healthy Chicago 2025's guiding principles. In particular, we heard feedback about the need to co-develop the HIA scope, methods, and process in close collaboration with the people who are most affected by the decision under consideration.

! While the approach applied to this RMG/Southside recycling HIA met the minimum elements required for HIAs outlined in the **Minimum Elements and Practice Standards,** we reflect on opportunities for improvement within our process evaluation to inform future efforts (see HIA Process Evaluation, Appendix A).

CDPH and the City of Chicago are committed to institutionalizing the use of assessment tools like health impact assessments and race equity impact assessments (REIA) as part of everyday practice. In 2016, Chicago, with CDPH support, adopted a Health in All Policies resolution that called upon all City departments and sister agencies to consider ways to improve health through their work – including by conducting health impact assessments. We have taken steps in that direction by incorporating health and race equity impact assessment (HREIA) approaches into the We Will Chicago citywide planning process, Equitable Transit-Oriented Development (ETOD) policy plan implementation, and racial equity assessment of the City's Qualified Allocation Plan. CDPH recently established a new Office of Health Equity in All Policies, which will provide tools and technical assistance to support CDPH and other City departments in leading HREIAs on high-impact policies and projects.

MONITORING

CDPH's intention is that this HIA will be used to guide action both on the RMG/Southside Recycling permit, as well as on broader policy and process change to promote health and racial equity. As such, we have developed a monitoring plan that includes indicators, actions, and responsible parties to implement the recommendations proposed in the HIA, as well as health effects and outcomes of these proposals (see HIA Monitoring Plan, Appendix F). CDPH also conducted a process evaluation (see HIA Process Evaluation, Appendix A) to inform future assessment efforts.

CONCLUSION

The findings from our HIA indicate that CDPH should deny the RMG/Southside Recycling permit application to operate a large recycling facility on Chicago's Southeast side. We reached this conclusion based on a combination of factors, including: concerns for health, environment, and quality of life in an already over-burdened community; the inherent risks of recycling operations; as well as concerns about the company's operating history, including apparent violations of existing permit requirements.

For many community members, environmental justice advocates, and public health practitioners, the issues raised by the RMG/Southside Recycling permitting process represented broader, more systemic concerns about how policies balance economic development interests with public health protections for vulnerable community areas. Recent steps such as the Air Quality Zoning ordinance, which was passed after the RMG/Southside Recycling zoning approval, begin to address these issues for new developments.

This HIA is the most rigorous and comprehensive study of a proposed industrial facility in Chicago to date. However, more work is necessary to fully understand how the cumulative impacts of industrial development affect health, and how this should be considered in the context of zoning and permitting decisions. Through the HIA process, CDPH developed a conceptual framework as well as methods for characterizing existing community conditions and analyzing potential environmental, health, and quality of life impacts of industrial development. This represents a starting place to build from, together with community and industry stakeholders.

Certain aspects of this assessment and its resulting recommendations were specific to RMG/Southside Recycling, informed by the inherent risks of large recycling facilities and the company's compliance history. An HIA was necessary in this case because public health considerations raised during the permitting process were not fully addressed during zoning. Although a similar process would not be required for existing businesses, we will continue to strengthen regulations to protect the public from the adverse impacts of industrial operations.

Change must come not just from CDPH, but through a 'whole of government' approach that includes other environmental regulators and City departments tasked with making decisions that impact the environment and health of all Chicago communities.

Endnotes

1 Bhatia R, Farhang L, Heller J, Lee M, Orenstein M, Richardson M and Wernham *A. Minimum Elements and Practice Standards for Health Impact Assessment,* Version 3. September, 2014

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Appendix A

HIA Process Evaluation

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CDPH utilized a process evaluation to determine whether our RMG/Southside Recycling Health Impact Assessment (HIA) included all of the minimum elements of HIA included in Version 3 of the Minimum Elements and Practice Standards for Health Impact Assessment.[1] The following table describes how our process met each of the minimum elements.

Minimum Elements of HIA	RMG/Southside Recycling HIA
Was the HIA conducted to assess the potential health consequences of a proposed program, policy, project, or plan under consideration by decision-makers, and was it conducted in advance of the decision in question?	**YES.** The HIA was conducted to assess the potential health consequences of the RMG/Southside Recycling permit application to operate a large recycling facility on the Southeast side of Chicago. At the suggestion of the U.S. EPA, and with their guidance, CDPH conducted the HIA in advance of making a decision on whether to issue the permit.
Did the HIA involve and engage stakeholders affected by the proposal, particularly vulnerable populations?	**YES.** CDPH hosted three HIA public engagement sessions from November through February 2022. These sessions were open to the public, with a special focus on residents of the Southeast side. CDPH used input provided during the engagement sessions to establish the HIA scope and identify recommendations for policy and process changes to promote health and racial equity. This input built upon a public engagement process CDPH conducted prior to the HIA, which included two public town halls, an extended public comment period, and daily media monitoring. Overall, CDPH received insight from thousands of community members, local organizations, environmental advocacy groups, and public health professionals during this permitting process. Although the minimum element was satisfied here, CDPH acknowledges this as an area where we can and must do more to practice our Healthy Chicago 2025 value of ensuring that our processes are community-led. We take seriously the critique provided by Southeast side residents and public health colleagues that our HIA did not incorporate best practices in community engagement and promoting equity throughout the HIA process. Stakeholder participation in this HIA, as understood by the Ladders of Citizen participation, was limited to information and consultation. Stakeholder input shaped the HIA, but the process fell short of community ownership and delegated power as the highest practice standard for stakeholder participation in HIA.[2]

1 Bhatia R., Farhang L., Heller J., Lee M., Orenstein M., Richardson M., and Wernham A. Minimum Elements and Practice Standards for Health Impact Assessment, Version 3. September, 2014.

2 Human Impact Partners. A Health Impact Assessment Toolkit: A Handbook to Conducting HIA, 3rd Edition. Oakland, CA: Human Impact Partners. February 2011.

Minimum Elements of HIA	RMG/Southside Recycling HIA
Did the HIA systematically consider the full range of potential impacts of the proposal on health determinants, health status, and health equity?	**YES.**. During the scoping process, CDPH engaged stakeholders to identify the potential impacts of the proposed Southside Recycling facility on the surrounding neighborhoods. Based on this input, we identified potential impacts in three broad domains Environment (air pollution, water pollution, soil pollution, explosions/fire, recycling capacity), Health (acute and chronic risks, cancer risks, mental health and well-being), and Quality of Life (traffic and street conditions, economic development and job opportunity, noise, and concentration of industry). CDPH developed a pathway diagram to characterize the relationship among these impacts. In the absence of existing practice standards for applying cumulative impact assessment, CDPH was compelled to use the best available evidence, supplementing it with theory and promising practices to consider a broader range of potential impacts on health determinants, health status, and health equity. The practice of assessing how the structural and social determinants of health contribute to disproportionate risk and health inequities in overburdened communities must continue to expand for cumulative impact assessment to drive informed and effective decision-making
Did the HIA provide a profile of existing conditions for the populations affected by the proposal, including their health outcomes, health determinants, and vulnerable sub-groups within the population, relevant to the health issues examined in the HIA?	**YES.** The HIA includes an extensive Existing Conditions Summary (Appendix D) that compares health outcomes, social factors that contribute to health, and environmental conditions in East Side, Hegewisch, and South Deering to Chicago overall. Our assessment gives special consideration to sub-groups such as people with underlying conditions who are made more vulnerable to negative health effects due to pollution exposure.
Did the HIA characterize the proposal's impacts on health, health determinants, and health equity, while documenting data sources and analytic methods, quality of evidence used, methodological assumptions, and limitations?	**YES.** For each of the impacts included in the HIA scope, CDPH identified and existing data source or conducted additional analysis to characterize potential effects on the environment, health, and quality of life for Southeast side residents. CDPH documented data sources, methods, quality of evidence, assumptions and limitations in the Existing Conditions Summary (Appendix D) and Environmental & Health Risk Assessment (Appendix E). Real-world constraints result in diversity of HIA practice[3] CDPH applied the analytical methods that were feasible with data sources available within the decision-making context and constraints. If additional assessment were feasible, particularly more robust qualitative input, it would only increase our understanding of the cumulative impacts of environmental injustice on health inequity.

3 Bhatia R., Farhang L., Heller J., Lee M., Orenstein M., Richardson M., and Wernham A. Minimum Elements and Practice Standards for Health Impact Assessment, Version 3. September, 2014.

Minimum Elements of HIA	RMG/Southside Recycling HIA
Did the HIA provide recommendations, as needed, on feasible and effective actions to promote the positive health impacts and mitigate the negative health impacts of the decision, identifying, where appropriate, alternatives or modifications to the proposal?	**YES.** The HIA includes a discussion of environmental and quality of life mitigations proposed (or already put in place) by RMG, as well as additional mitigations that CDPH could impose as special conditions for a permit. These mitigations were developed with input from our environmental consultant, based on a review of industry standards and best practices. In addition to permit mitigations, the HIA includes recommendations on other policy and process changes that would promote health and racial equity for residents of the Southeast side. These recommendations were provided and prioritized by participants in the HIA public engagement sessions.
Did the HIA produce a publicly accessible report that includes, at minimum, documentation of the HIA's purpose, findings, and recommendations, and either documentation of the processes and methods involved, or reference to an external source of documentation for these processes and methods? Was the report shared with decision-makers and other stakeholders?	**YES.** CDPH produced a public document that includes the HIA's purpose, findings, recommendations, and methods for the process. The report will be shared with our commissioner, the mayor, relevant City departments, as well as the U.S. EPA. The report will also be disseminated to individuals who participated in public engagement sessions and made publicly available on our **website**.
Did the HIA propose indicators, actions, and responsible parties, where indicated, for a plan to monitor the implementation of recommendations, as well as health effects and outcomes of the proposal?	**YES.** CDPH developed an HIA Monitoring Plan (Appendix F) to track the implementation of recommendations. Monitoring the long-term health effects of our recommendations is beyond the scope of this HIA; however, CDPH does make a broad range of community health indicators publicly available on the **Chicago Health Atlas**.

Appendix B

Literature Review

***TO BE INSERTED**

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Appendix C

Community Input Summary

***TO BE INSERTED**

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Appendix D

Existing Conditions Summary

***TO BE INSERTED**

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Appendix E

Environmental & Health Risk Assessment

***TO BE INSERTED**

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Appendix F

HIA Monitoring Plan

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Proposed Indicators for Monitoring Adoption of HIA Recommendations

CDPH developed recommendations based on the HIA findings. This includes community input from the permit process and HIA public engagement sessions (see Community Input Summary, Appendix C) and a review of best and promising practices from around the country. CDPH is committed to being held accountable for and taking action on these recommendations. Detailed below are the actions proposed, the responsible agencies and an estimated time frame for when we expect to implement each of these actions.

Recommendation	Responsible Agency	Timing*
Make and announce permit decision in accordance with the recommendation of the summary report.	CDPH	Short term
Purchase and installation of federally equivalent air monitors to ensure increased air monitoring	CDPH	Medium term
Collaboration on improved enforcement of air facilities on the Southeast side and citywide	CDPH, IEPA, US EPA	Short term and ongoing
Updating procedures, protocols and training and implementing updates to ensure appropriate inspection frequency, using community vulnerability data to prioritize inspections, clear policies on issuing warnings, recording complaint inspections and following up on violations.	CDPH	Short term and ongoing
Promulgate new, strong rules for facilities that process demolition and construction debris to ensure businesses with potential to impact surrounding communities are subject to monitoring, reporting and control requirements.	CDPH, Law	Short term
Promulgate new, strong rules for air permit facilities to ensure businesses with potential to impact surrounding communities are subject to monitoring, reporting and control requirements.	CDPH, Law	Medium term
Promulgate new, strong rules for general recycling facilities to ensure businesses with potential to impact surrounding communities are subject to monitoring, reporting and control requirements.	CDPH, Law	Medium term
Conduct cumulative impact assessment to get baseline data on environmental, health and social conditions citywide.	CDPH	Medium term
Develop cumulative impact ordinance	CDPH, Mayor's Office, DPD, Law	Medium term
Institutionalize use of Health Impact Assessment (HIA) and Racial Equity Impact Assessment (REIA).	CDPH, other City departments as appropriate	Short term and ongoing

* SHORT TERM = Up to 1 year MEDIUM TERM = 1 to 2 years

The recommendations of this HIA will take several years to implement and certainly longer to realize results. Therefore, a detailed monitoring plan for all health effects and outcomes related to these recommendations is out of scope for this HIA. However, CDPH is committed to continuing to provide access to data on health, environment and quality of life indicators such as those presented in our Existing Conditions Summary (see Appendix D). This data is made available to the public through the Chicago Health Atlas and updated regularly. CDPH will also continue to update the Air Quality and Health Index as new data becomes available.